

Claims

1. Plastic fuel inlet compartment for insertion into a car body opening in a motor vehicle, having:

- a passage hole (2) in the rear wall (3) and/or a connector on it for connecting or passing through a tank line that can be closed,
- a second passage opening (28) in the rear wall (3), delimited by a weakening groove (27), for bivalent gas tanking, marked or molded on, and that after installation or during pre-assembly of the fuel inlet compartment into the recess of the car body, the wall part delimited in this manner can be broken out or pushed out to form the passage opening (28).
- a pivot bearing (4) that runs essentially vertically, with horizontal bearing bores (5, 6) at the top and bottom on a side mantle wall (7) of the fuel inlet compartment (1), for insertion of a bearing pin (8) that is mounted to rotate therein, to which a bearing lever (9) of a door (10) that closes off the fuel inlet compartment (1) is attached,

- at least one bearing chamber (11) for accommodating at least one locking device disposed in a housing (12), for locking the closed door (10), provided on the inside and/or the outside, molded onto at least one mantle wall (7, 16, 17, 18) of the fuel inlet compartment (1), having a locking element (13) that can be activated by a motor and/or by hand, mounted to rotate or be displaced, which releasably engages behind a stop projection (14) on the back of the bearing lever (9) or the door (10) in the closed position,
- devices (15) on the outsides of the mantle walls (7, 16, 17, 18) for engaging the fuel inlet compartment (1) and/or attachment projections for attaching the fuel inlet compartment (1) on the car body and/or on the supports attached to it.

2. Fuel inlet compartment according to claim 1, characterized in that the pivot bearing (4) is disposed in a side chamber (19) provided in a side wall (7), projecting laterally, and that the bearing lever (9) has an arc-shaped segment (20) having a vertical bearing bore (21) for the bearing pin (8) and a planar segment (22), and the door (10) rests against the opening edge (23) of the fuel inlet compartment (1) with the outer edge region, in the closed position, and assumes an at least approximately

perpendicular position to the fuel inlet compartment opening in the open position.

3. Fuel inlet compartment according to claim 2, characterized in that the door (10) is releasably attached to the planar segment (22) of the bearing lever (20), particularly by means of rear-side catch elements thereon.

4. Fuel inlet compartment according to claim 2 or 3, characterized in that a mechanical or viscose brake (24) consisting of a rotor that is mounted to rotate in a bearing chamber, applying a certain torque, is coupled with the rotating bearing pin (8), at least at one end, the housing of which brake is attached so as not to rotate out of position, on a bearing wall of the pivot bearing (4) or wall of the bearing chamber (19).

5. Fuel inlet compartment according to claim 1, characterized in that a stop projection (14) having a perpendicular locking segment (25) is provided on the door (10) or on the bearing lever (9), opposite the pivot bearing (4), which projection engages in a contour-adapted recess (26) in a projection provided on the inside, on the mantle wall (16) of the fuel inlet compartment that lies opposite the pivot bearing (4), and that the locking element (13) engages behind the locking segment (25).

6. Fuel inlet compartment according to claim 1, characterized in that the at least second passage opening (26) is already provided as an open passage hole.

7. Fuel inlet compartment according to claim 1, characterized in that the face of the fuel inlet compartment (1) is provided with a circumferential frame-shaped edge (23) that projects beyond the mantle walls on the outside.

8. Fuel inlet compartment according to claim 7, characterized in that rear-side catch elements on the outsides of the mantle walls (7, 16, 17, 18) work together with the rear side of the edge (23) and the car body wall, in such a manner that the fuel inlet compartment is held locked in place when it is inserted.

9. Fuel inlet compartment according to one of the preceding claims, characterized in that the fuel inlet compartment (1) is configured to be essentially rectangular, round, or oval, in a top view representation.

10. Fuel inlet compartment according to one or more of the preceding claims, characterized in that the fuel inlet compartment (1) forms an assembly unit with the pre-assembled locking device

(12), the bearing lever (9), the door (10), the bearing pin (8), and the other elements.

11. Fuel inlet compartment according to claim 1, characterized in that a resilient catch tongue is provided in the bearing chamber (11) for the locking device, which tongue stops the housing (12) of the locking device (12).

12. Fuel inlet compartment according to claim 1 or 11, characterized in that the locking device (12) a micro-actuator having a hook-shaped locking element (13) that can be electrically controlled, about a defined angle, which engages behind a locking pin or projection on the rear side of the door (10) or on the segment (22) of the bearing lever (9) that accommodates the door (10), in the locked position, and pivots it back into an open position by means of excitation with current.

13. Fuel inlet compartment according to claim 1, characterized in that the door (10) and the bearing lever (9) and the locking element (13) also consist of plastic and that the attachment projections are parts that have been molded on.

14. Fuel inlet compartment according to claim 12, characterized in that the hook-shaped locking element (13) has a press-open

slide surface on which the locking pin or projection on the rear of the door (10) or on the bearing lever slides along during rotation to a certain angle, and that a switch is activated by means of pressure on the tank door (10), when the micro-actuator (12) is unlocked, which switch controls a setter of the micro-actuator (12) and brings about the rotary movement of the locking element (13), which opens the tank door (10) by a defined gap, in the manner of an ejector, which door is held in this open position or opened by means of a spring (29) that acts on the hinge, and that the locking element can be reset into the locked position by means of a spring integrated into the actuator or under electrical control.

15. Fuel inlet compartment according to claim 12, characterized in that it has a switch for manual activation, accessible on the inside, for closing a circuit that is connected with a control device, which records at least the type of fuel being filled, as a function of the activation of the switch.